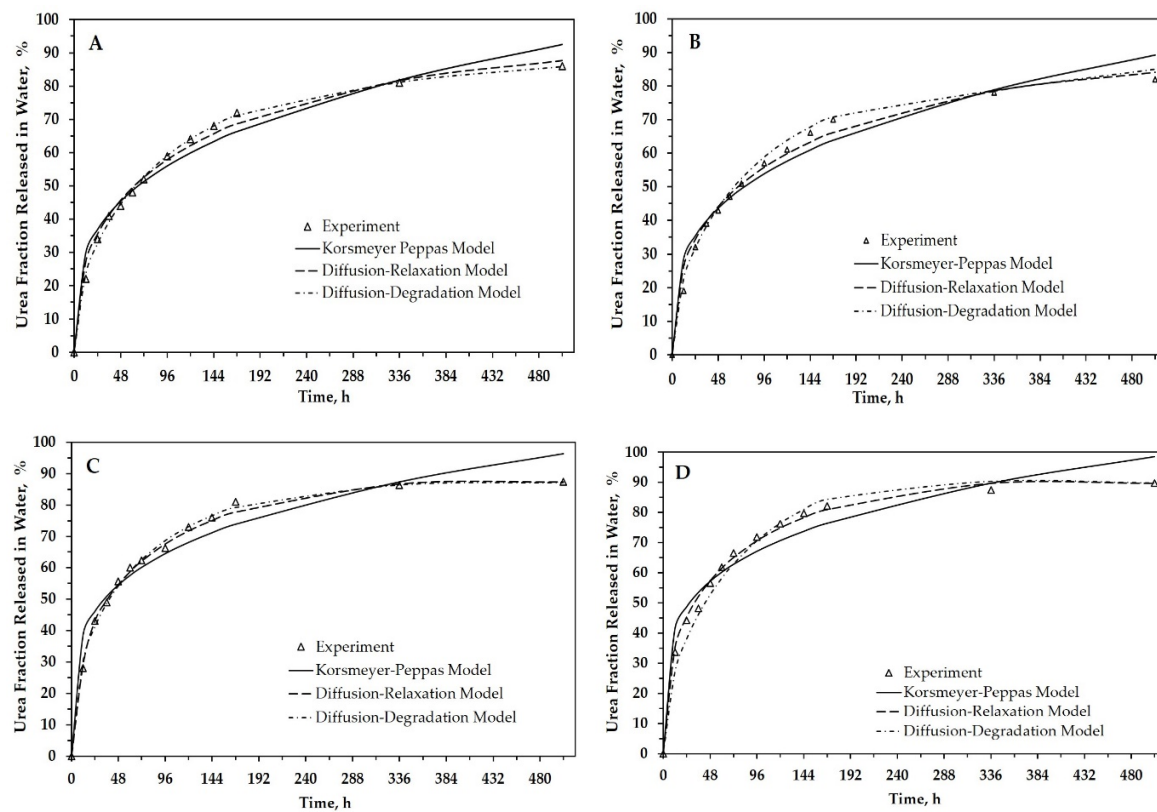


# A Slow-release Fertilizer of Urea Prepared via Melt Blending with Degradable Poly(lactic acid): Formulation and Release Mechanisms

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**Table S1.** Urea concentration in water during the urea release test

| Time,<br>h | Concentration of Urea in Solution, g/100 ml |                 |                 |                 |                 |
|------------|---|-----------------|-----------------|-----------------|-----------------|
|            | SRF101                                      | SRF201          | SRF301          | SRF203          | SRF205          |
| 0          | 0.0000                                      | 0.0000          | 0.0000          | 0.0000          | 0.0000          |
| 12         | 0.0029 ± 0.0002                             | 0.0017 ± 0.0001 | 0.0019 ± 0.0002 | 0.0084 ± 0.0002 | 0.0168 ± 0.0002 |
| 24         | 0.0040 ± 0.0002                             | 0.0028 ± 0.0002 | 0.0032 ± 0.0002 | 0.0129 ± 0.0003 | 0.0221 ± 0.0003 |
| 32         | 0.0045 ± 0.0002                             | 0.0038 ± 0.0002 | 0.0039 ± 0.0002 | 0.0147 ± 0.0003 | 0.0241 ± 0.0003 |
| 48         | 0.0049 ± 0.0003                             | 0.0049 ± 0.0002 | 0.0043 ± 0.0003 | 0.0167 ± 0.0002 | 0.0283 ± 0.0003 |
| 60         | 0.0054 ± 0.0002                             | 0.0057 ± 0.0002 | 0.0047 ± 0.0002 | 0.0180 ± 0.0004 | 0.0309 ± 0.0003 |
| 72         | 0.0057 ± 0.0002                             | 0.0066 ± 0.0003 | 0.0051 ± 0.0004 | 0.0187 ± 0.0001 | 0.0333 ± 0.0003 |
| 96         | 0.0063 ± 0.0003                             | 0.0076 ± 0.0002 | 0.0057 ± 0.0003 | 0.0199 ± 0.0002 | 0.0359 ± 0.0004 |
| 120        | 0.0067 ± 0.0002                             | 0.0081 ± 0.0002 | 0.0061 ± 0.0002 | 0.0219 ± 0.0003 | 0.0381 ± 0.0006 |
| 144        | 0.0071 ± 0.0003                             | 0.0082 ± 0.0002 | 0.0066 ± 0.0003 | 0.0228 ± 0.0003 | 0.0399 ± 0.0004 |
| 168        | 0.0076 ± 0.0003                             | 0.0083 ± 0.0001 | 0.0070 ± 0.0002 | 0.0257 ± 0.0002 | 0.0411 ± 0.0004 |
| 336        | 0.0085 ± 0.0002                             | 0.0084 ± 0.0002 | 0.0078 ± 0.0003 | 0.0259 ± 0.0003 | 0.0437 ± 0.0003 |
| 504        | 0.0088 ± 0.0002                             | 0.0086 ± 0.0002 | 0.0082 ± 0.0002 | 0.0262 ± 0.0002 | 0.0449 ± 0.0003 |



**Figure S1.** The urea fraction released in water as a function of time based on experimental and calculation data: (a) SRF 201, (b) SRF 301, (c) SRF 203, and (d) SRF 205